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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/586,200

07/14/2006

Martin Ernst Tollner

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04/29/2010

Edwards Vacuum, Inc.

2041 MISSION COLLEGE BOULEVARD

SUITE 260

SANTA CLARA, CA 95054

EXAMINER

BAYOU, AMENE SETEGNE

ART UNIT

PAPER NUMBER

3746

NOTIFICATION DATE

DELIVERY MODE

04/29/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LORETTA.SANDOVAL@EDWARDSVACUUM.COM

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/586,200 | Applicant(s) TOLLNER, MARTIN ERNST | |
| | Examiner AMENE S. BAYOU | Art Unit 3746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 and 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMillin et al (US 6142163) in view of Beyer et al (5944049).

3. In re claim 1 McMillin et al disclose a method and apparatus for pressure control including:

- A method of setting the pressure in a **chamber (132)** of a vacuum system to a required pressure (**column 3, lines 22-30; figures 2 and 3**) , the system comprising a pressure control system including a **pump (126)** for evacuating gas from the **chamber (132)** and a **flow controller (142)** for allowing the flow of gas into the **chamber (132)** , the method comprising setting an initial flow out of the chamber for achieving a pressure above the required pressure so as to increase the rate of pressure increase (**figure 3; column 3, lines 22-30; column 10, lines 1-27**) , the initial flow occurring over a transient period which does not allow the pressure to exceed the required pressure, and setting a preset flow out of the chamber after the transient period has elapsed for achieving and maintaining the required pressure , wherein during the transient period the initial

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flow is not maintained at a constant level (**column 3, lines 22-30**). McMillin et al however fail to disclose the following limitation which is taught by Beyer et al:

- A valve downstream of the **pump (2)** ,wherein the setting comprises varying a conductance of the valve downstream of the pump (**the conductance of valve 11 is varied by controller 10 as detailed in column 6, lines 4-37**).It would have been obvious to one skilled in the art at the time the invention was made to have modified the pumping apparatus of McMillin et al by using a conductance variable valve downstream of the pump as taught by Beyer et al since it would further help to correctly regulate the pressure in the vacuum chamber.

4. In re claim 2 McMillin et al in view of Beyer et al as applied to claim 1disclose the claimed invention:

McMillin et al disclose:

- The transient period elapses when the pressure has increased to the required pressure and the preset flow maintains the pressure at the required pressure (**figure 3; column 3, lines 22-30 and column 5, lines 15-29**).

5. In re claim 3 -5 and 16 McMillin et al in view of Beyer et al as applied to claim 1disclose the claimed invention:

McMillin et al disclose:

- Setting a preset flow is attained by setting the effective pumping speed of the pressure control system to a preset effective pumping speed, and the initial flow is attained by setting the effective pumping speed lower than the preset pumping speed during the transient period (**column 12, lines 37-39; column 9**

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lines 28-32; column 7, lines 36-41); wherein the effective pumping speed is controlled by reducing the speed of the pump, wherein setting a preset flow is attained by setting a preset speed of the pump and the initial flow is attained by reducing the speed below the preset speed during the transient period, **(Please note that pump speed and flow rate are directly related)**.

6. In re claim 13 McMillin et al in view of Beyer et al as applied to claim 1 disclose the claimed invention:

McMillin et al disclose:

- During the **transient period (figure 3, column 5, lines 15-29)**, the pump speed is reduced **(Please note that pump speed and flow rate are directly related)** so that the amount of gas which leaks up-stream across the pump increases **(this is inherent)** since so as to increase the gas flowing into the chamber.

7. In re claim 14 McMillin et al in view of Beyer et al as applied to claim 1 disclose the claimed invention:

McMillin et al disclose:

- During the transient period the initial flow is maintained at a constant level for a fixed time **(this step is a conventional method as clearly pointed out in column 5, lines 18-24)**.

8. In re claim 15 McMillin et al in view of Beyer et al as applied to claim 1 disclose the claimed invention:

McMillin et al disclose:

- During the transient period the initial flow is not maintained at a constant level
(Figure 3; column 5, lines 15-30 and column 3, lines 22-30).

Response to Arguments

9. Applicant's arguments with respect to claims 1-5 and 13-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amene Bayou whose telephone number is (571)270-3214. The examiner can normally be reached on Monday through Friday, 8:30am to 5:30pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746

/Amene S Bayou/

Examiner, Art Unit 3746